NRC PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 9, 1978

Docket No. 50-213

Connecticut Yankee Atomic Power Company
ATTN: Mr. W. G. Counsil, Vice President
Nuclear Engineering and Operations
Post Office Box 270
Hartford, Connecticut 06101

Gentlemen:

In the meeting on July 20, 1978, we advised your representatives of the status of our ongoing review of the environmental qualification of safety-related electrical equipment (SEP Topic III-12). We have completed the tabulation of the information from all SEP facilities using a standard format. The information provided in your submittals of March 6, 1978 and July 27, 1978, are listed in the enclosed table, including references and an explanation to the table.

So we can proceed with our review of this topic we request that you (a) complete as much of the table as possible, (b) identify appropriate references, and (c) confirm the accuracy and completeness of the table. Please provide the information within 30 days after receipt of this letter. If you have any questions regarding this request call the NRC Project Manager for your facility.

Sincerely,

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosure:
As stated

cc w/enclosure:
See next page

7811270132

cc w/enclosure:
Day, Berry & Howard
Counselors at Law
One Constitution Plaza
Hartford, Connecticut 06103

Superintendent
Haddam Neck Plant
RFD #1
Post Office Box 127E
East Hampton, Connecticut 06424

Russell Library
119 Broad Street
Middletown, Connecticut 16457

Mr. James R. Himmelwright
Post Office Box 270
Hartford, Connecticut 06101

K M C, Inc.
ATTN: Jack McEwen
1747 Pennsylvania Avenue, NW
Suite 1050
Washington, D. C. 20006

Haddam Neck

Problems:

Time Needed: None

Spec. Data:
T:
P:
RH:
Ch:
Fas:

Qual. Data:
T: 5
P: 5,10
RH: 5,10,16
Ch: 5,16
Fas: 5

Qual Method:
T:
P:
RH:
Ch:
Fas:

Unqualified:
T: 12

SEP Submittal References 1, 2 and 3 do not address connections or splices.

Haddam Neck

SEP Submittal References:

1. Mar 6, 1978 Letter, D.C. Switzer to Dir., NRR
2. Mar. 21, 1978 Letter, D.C. Switzer to Dir., NRR
3. Jul. 27, 1978 Letter, W.G. Counsil to Dir., NRR

Haddam Neck

Documentation References:	Location
1. Feb 1, 78 and Feb 2, 78 Core Letters	
2. NUSCO Evaluations dated 7/20/78 and 7/21/78	
3. FIRL I-22232-01	
4. Jan 31, 78 Letter from Limitorque	
5. Limitorque Test Report # 600178	
6. FIRL I-23441	
7. Apr 3, 78 Whouse Letter CYW-78-518	
8. Southern Cal. Edison Report to NRC dated Feb 24, 78	
9. Collyer Technical Report #67-2	
10. IEEE Paper, R. Blodgett & R.G. Fisher, May, 1964	
11. NUSCO Evaluation dated 7/24/78	
12. Okonite Research Report #467	
13. Stone and Webster Evaluation dated 7/19/78	
14. Mar 23, 78 Letter from General Cable	
15. Jan 13, 67 Collyer Letter	
16. FIRL F-C2750	
17. Johnson Service Co. Data Sheet V-24	
18. Kircher & Bowman, <u>Effects of Radiation on Materials and Components</u>. New York: Reinhold (1964)	
19. FDCR #270 Technical Rev.	
20. Feb 2, 78 and Feb 10, 78 Letters, D.C. Switzer to A. Schwencer	
21. NUSCO Evaluation dated 3/27/78	
22. Dec 12, 77 Letter, D.C. Switzer to E.J. Case	
23. NUSCO Evaluation dated 7/7/78	
24. Jun 21, 78 Letter, R.H. Graves to R.H. Grier	

Reactor: Haddam Neck — Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	Loc	Time Needed	Environment			Qual. Method	Reference	
				Parameter	Spec.	Qual.			
1 Motor Operated Valve Limitorque/ Not Avail #	3-1/2	I	Long	Temp.	267°F	340°F	Test	3(E),4,5(E)	Currently being Tested
				Pr (Dia)	50	125	Test		
				RH	100%	100%	Test		
				Chem	Yes	Sat	Test		
				Rad	1.9×10^6	2×10^8	Test		
				Sub.	No	—	—	—	
2 Motor Operated Valve Limitorque/ Not Avail #	3-1/3	I	Long	Temp.	267°F	340°F	Test	4,6(E)	
				Pr (Dia)	50	162	Test	6	
				RH	100%	100%	Test	6	
				Chem	Yes	Sat	Eval	1	
				Rad	1.9×10^6	2×10^8	Test	6	
				Sub.	No	—	—	—	
3 Motor Operated Valve Teledyne/ T4	3-1/1	I	Long	Temp.	267°F	275°F	Eval	42	
				Pr. (Dia)	50	55	Eval	2	
				RH	100%	100%	Eval	2	
				Chem	Yes	Sat	Eval	2	
				Rad	2.9×10^6	1×10^7	Eval	2	
				Sub.	No	—	—	—	
4 Motor Operated Valve Teledyne/ T10	3-1/4	I	Long	Temp.	267°F	275°F	Eval	42	
				Pr. (Dia)	50	55	Eval	2	
				RH	100%	100%	Eval	2	
				Chem.	Yes	Sat	Eval	2	
				Rad	2.9×10^6	1×10^7	Eval	2	
				Sub.	No	—	—	—	
5 Penetration, Elec. No Man Listed/ No Part #	3-5/2	I	Long	Temp.	267°F		Eval	23,24	Currently being Tested
				Pr. (Dia)	50		Eval	23	
				RH	100%		Eval	23	
				Chem.	Yes		Eval		
				Rad	1.9×10^6		Eval	23	
				Sub.	No	—	—	—	

Reactor: Haddam Neck — Systematic Evaluation Program

	SEP Submittal		Time	Environment			Qual.		
Equipment Type	Reference	Loc	Needed	Parameter	Spec.	Qual.	Method	Reference	
6									
Terminal Block	3-5/1	I	Long	Temp.	267°F	285°F	Test		
GE/				Pr (Psia)	50	55	Test		
EB-25				RH	100%	100%	Test		
(enclosed)				Chem.	Yes	Sat.	Test		
				Rad.	4.5×10^7	5×10^7	Test		
				Sub.	No	—	—	—	
7									
Terminal Block	3-5/1	I	Long	Temp.	267°F	285°F	Eval		11.2.2.1
Westinghouse/				Pr. (Psia)	50	55	Eval		
805452				RH	100%	100%	Eval		
(exposed)				Chem	Yes	Sat.	Eval		
				Rad.	1.3×10^8	2×10^7	Eval		
				Sub.	No	—	—	—	
8									
Cable	3.2/4	I	<1	Temp.	267°F	260°F	Test		11.2.1.1
Collyer/				Pr. (Psia)	50	36	Eval		
PE/PVC				RH	100%	100	Eval		
				Chem	Yes	Sat	Eval		
				Rad.	1.3×10^8	5×10^7	Eval		
				Sub.	No	—	—	—	
9									
Cable	3-3/1	I	Long	Temp.	267°F	286°F	Eval		11.2.2.2
Okonite/				Pr. (Psia)	50	55	Eval		
Eatyl/PVC				RH	100%	100%	Eval		
				Chem.	Yes	Sat	Eval		
				Rad.	1.3×10^8	5×10^7	Eval		
				Sub.	No	—	—	—	
10									
Cable	3.3/2	I	<1	Temp.	267°F	221°F	Eval		11.1.3
Samuel Moore/				Pr. (Psia)	50		Eval		
PVC/PVC				RH	100%		Eval		
Deloron 1852				Chem.	Yes	Sat.	Eval		
				Rad.	1.3×10^8	5×10^7	Eval		
				Sub.	No	—	—	—	

Reactor: Hadam Neck — Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	Loc	Time Needed	Environment Parameter	Spec	Qual.	Qual. Method	Reference
Cable	3-3/3	I	Long	Temp.	267°F	302°F	Eval	15, 16, 23
General Cable/				Pr. (Psia)	50	5000	Eval	
IRI				RH	100%	100%	Eval	
				Chem	Yes	Sat	Eval	
				Rad.	3.1×10^6	4×10^7	Eval	
				Sub.	No	—	—	—
12								
Cable	3-4/1	I	Long	Temp.	267°F	269°F	Eval	23, 16a
Colltech/				Pr. (Psia)	50	56	Eval	
Okonite Kapton				RH	100%	100%	Eval	
				Chem	Yes	Sat	Eval	
				Rad.	3.1×10^5	5×10^7	Eval	
				Sub.	No	—	—	—
13								
Transmitter, Pressure	3-2/2	I	<1	Temp.	267°F	274°F	Test	2
Foxboro/				Pr. (Psia)	50	75	Test	
6U3H-D21				RH	100%	100%	Test	
				Chem	No	—	—	—
				Rad.	1.2×10^4	1×10^6	Test	
				Sub.	No	—	—	—
14								
Transmitter, Level	3-2/3	I	<1	Temp.	267°F	274°F	Test	2
Foxboro/				Pr. (Psia)	50	75	Test	
6U3HM-HS1-F				RH	100%	100%	Test	
				Chem	No	—	—	—
				Rad.	1.2×10^4	1×10^6	Test	
				Sub.	No	—	—	—
15								
Motor, Fan	3-2/1	I	Long	Temp.	267°F	320°F	Eval	2, 7
Westinghouse/				Pr. (Psia)	50	75	Eval	
No Part #				RH	100%	100%	Eval	
				Chem	Yes	Sat	Eval	
				Rad.	3.1×10^6	2×10^8	Eval	
				Sub.	No	—	—	—

Reactor: Haddam Neck — Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	Loc	Time Needed	Environment: Parameter	Spec.	Qual.	Qual. Method	Reference
6								11.E.2.18
Air Solenoids — Johnson Serv. Co. V-24-2	3-4/3	I	< 1	Temp.	267°F	140°F	Tests	
				Pr (Dia)	50	45	Tests	
				RH	100%		Eval	
				Chem	Yes		Eval	
				Rad.	4×10^5	4×10^5	Eval	
				Sub.	No	—	—	—
17 Junction Box — Steel Box, No Man. Listed, No Part #	2-2	I	Long	Temp.	267°F	220°F	Test	
				Pr (Dia)	50	45	Test	
				RH	100%	100%	Test	
				Chem	Yes	Sat.	Test	
				Rad.	4.5×10^5	5×10^6	Test	
				Sub	No	—	—	—
				Temp.				
				Pr. (Dia)				
				RH				
				Chem				
				Rad.				
				Sub.				
				Temp.				
				Pr. (Dia)				
				RH				
				Chem.				
				Rad.				
				Sub.				
				Temp.				
				Pr. (Dia)				
				RH				
				Chem.				
				Rad.				
				Sub.				